

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Database Management

Course Abbreviation and Number: CSC 2660

Credit Hours: 4

Course Type: Lecture

Course Description: Students will learn about database design methodology, exploring various data models, particularly the relational model. Topics include relational algebra, query languages, design techniques, security considerations, and database implementation. Students will use a database management system such as Oracle or MySQL.

Prerequisite: CSC 1570 or CSC 1760.

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Identify problems in a database such as: data redundancy, inconsistency, and Anomalies.
 2. Use a database software package such as MS SQL Server, Oracle or MySQL to query and implement database tables.
 3. Design and implement a relationally sound database to meet the specific requirements.
 4. Demonstrate the ability to normalize their tables into third normal form.
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Topics Covered:

- Overview of Database Technology
 - File systems
 - Electronic Database Systems
 - Data Models
 - Relational Database Model
 - Entity Relationship Modeling
 - Normalization
 - Database Design
 - System Development Life Cycle
 - Database Development Life Cycle
 - End User Requirements
 - Advanced Database Topics
 - Concurrency Control
 - Transaction Management
 - Distributed Database Management Systems
 - Database Implementation and Administration
 - Backup and Recovery Management
 - Security Concerns
 - Structured Query Language
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Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
 - [Accessibility Services](#)
Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
 - [Get Help: JCC & Community Resources](#)
 - [Emergency Closing Procedures](#)
 - Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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 - Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.
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Effective Date: Fall 2021